ACC.11
60th Annual Scientific Session & Expo

E1580
JACC April 5, 2011
Volume 57, Issue 15

VASCULAR DISEASE

CURRENT OUTCOMES FOR SUPERIOR FEMORAL ARTERY INTERVENTIONS: ROLE OF DIABETES AND RENAL INSUFFICIENCY

ACC Poster Contributions
Ernest N. Morial Convention Center, Hall F
Monday, April 04, 2011, 3:30 p.m.-4:45 p.m.

Session Title: Endovascular Therapy - Outcomes and Innovations
Abstract Category: 13. Endovascular Therapy
Session-Poster Board Number: 1112-126

Authors: *Christopher J. Smolock, Javier E. Anaya-Ayala, Jean Bismuth, Joseph J. Naoum, Hosam F. El-Sayed, Heitham Hassoun, Eric K. Peden, Alan B. Lumsden, Mark G. Davies, The Methodist Hospital, DeBakey Heart and Vascular Center, Houston, TX*

Background: Diabetes mellitus (DM) and chronic renal insufficiency (Renal) is increasing in incidence in patients undergoing superficial femoral artery (SFA) interventions. The synergistic influence is not well described. Outcomes of SFA interventions in such patients were examined.

Methods: A database of SFA endovascular treatment (1999-2009) was queried. Patients were categorized as no DM or Renal, DM if insulin/non-insulin dependent DM, Renal if glomerular filtration rate (eGFR) <60ml/min/1.73m3, and DM+Renal. Pre-operative angiograms were reviewed and scored (1 to 19 by modified SVS criteria) to assess distal runoff. Higher score implies worse runoff. Kaplan-Meier analyses assessed time-dependent outcomes. Factor analyses were performed (Cox model) for time dependent variables.

Results: 1018 limbs underwent SFA intervention for symptomatic disease. Patients with DM+Renal had greater rest pain, tissue loss, poorer runoff and worse level of ischemia. Mortality and morbidity was elevated in Renal group. Freedom from recurrent symptoms was worse in DM, Renal, and DM+Renal despite no difference in anatomic outcomes. Presence of DM+Renal resulted in decreased limb salvage that correlated with worse presenting symptoms and tibial runoff (Table).

	Control	DM	Renal	DM+Renal
Number Limbs at Risk (n)	405	356	72	185
Gender (%)	67%	63%	65%	59%
Age (mean±SD) yrs	66±15	66±14	75±11**	66±13
Rest Pain / Tissue Loss (%)	27%	51%*	56%*	71%**
TransAtlantic InterSociety Consensus (TASC) C, D lesions (%)	40%	40%	40%	40%
Runoff Index (mean±SD)	5.6±4.3	6.9±4.6**	7.6±4.3**	7.9±4.1**
Mortality (%)	0.7	0.3	5.6 **	0.0
Morbidity (%)	10.1	11.0	22.2**	8.5
5 year Freedom from Recurrent Symptoms (%)	74	65*	63*	60**
5 year Limb Salvage (%)	91	84	89	60**
5 year Primary Patency (%)	66	59	62	63
5 year Assisted Primary Patency (%)	78	80	72	75
5yr-Secondary Patency (%)	78	81	72	75
* p<0.05 and **p<0.01 compared to Control				

Conclusion: Presence of DM+Renal is associated with decreased clinical efficacy after SFA intervention with poorer rates of symptom relief and lower limb salvage rate. This is driven by worse presenting symptoms and poor tibial runoff.